

REMARKS

In the Office Action dated January 26, 2005, the Examiner: (1) rejected claims 1 and 10 under 35 U.S.C. § 102(b); (2) rejected claims 2, 3, 6, and 27-34 under 35 U.S.C. § 103(a); (3) allowed claim 9; and (4) objected to claims 7 and 11 as being dependent upon a rejected base claim. Applicants thank the Examiner for indicating that claims 7, 9, and 11 contain patentable subject matter. Applicants have amended claims 1, 10, 27, and 31-33. No new matter has been added. Applicants submit that claims 1-3, 6-7, 9-11, and 27-34 are in condition for allowance and respectfully request notice to this effect.

I. Summary of the Examiner Interview Conducted April 7, 2005

A telephonic interview was conducted on April 7, 2005. Participants of the interview included Examiner Dong and Applicants' representative Lisa Schoedel. No exhibits were shown nor demonstrations conducted. The participants discussed claims 1 and 27; U.S. Patent No. 4,670,691 ("Podgorski '691"); and U.S. Patent No. 4,740,985 ("Podgorski '985"). For claim 1, Examiner Dong suggested that an amendment regarding the location of the getter well with respect to the optical cavity may overcome the cited art. For claim 27, Applicants' representative proposed an amendment to clarify that the getter material is located in an interior of the getter well. As a result of the interview, no agreement with respect to the claims was reached.

II. Response to the 35 U.S.C. § 102(b) Podgorski '691 Rejection

Claims 1 and 10 were rejected under 35 U.S.C. § 102(b) as being anticipated by Podgorski '691. In amended claims 1 and 10, Applicants recite a system and method for restricting a getter.

The getter is located in a getter well. The getter well is located in a gyroscope block having an optical cavity. The optical cavity, located within the gyroscope block, forms a closed loop path along an outer edge of the gyroscope block. The getter well is located in the gyroscope block at a distance away from the optical cavity and within the closed loop path formed by the optical cavity. A hole is located in the gyroscope block between the getter well and the optical cavity. The hole has a diameter substantially less than a diameter of the getter well, which limits gas flow between the getter well and the optical cavity. By limiting the gas flow into the getter well, the getter absorbs non-inert gas at a slower rate, which may increase the operational lifetime of a gyroscope. (See, e.g., Applicants' Specification, page 8, lines 6-11.)

In contrast, Podgorski '691 discloses a getter well located outside of the closed loop path formed by the optical cavity. The getter well in Podgorski '691 must be located outside of the closed loop path because the getter is a part of the anode. (Podgorski '691, column 2, lines 36-51.) The anode is connected to the exterior surface of the gyroscope block so it can be connected to a source of electrical energy, which is used to generate the laser beams that circulate around the closed loop path. Because the getter is a part of the anode, Podgorski '691 does not show or suggest the getter well being located within the closed loop path formed by the optical cavity.

As Podgorski '691 does not show or suggest the getter well being located within the closed loop path formed by the optical cavity, Applicants believe that Podgorski '691 does not show or suggest each and every element of claims 1 and 10. Accordingly, Applicants submit that Podgorski '691 does not anticipate claims 1 and 10.

In light of the amendments and remarks, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejections.

III. Response to the 35 U.S.C. § 103(a) Podgorski '691 and Galbrecht

Claims 2, 3, and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Podgorski '691 in view of U.S. Patent No. 5,056,102 ("Galbrecht"). Claims 2, 3, and 6 depend from claim 1. As described above, Podgorski '691 does not show or suggest the getter well being located within the closed loop path formed by the optical cavity. The Office Action cited to Galbrecht for the teaching that a barium alloy can be used as a getter material. (See Office Action, page 4.) However, this teaching fails to overcome the deficiencies identified in Podgorski '691. Accordingly, Applicants submit that claims 2, 3, and 6 are not obvious in light of the combination of Podgorski '691 and Galbrecht for at least the reasons described above with reference to claims 1 and 10.

In light of the amendments and remarks, Applicants respectfully request withdrawal of these 35 U.S.C. § 103(a) rejections.

IV. Response to the 35 U.S.C. § 103(a) Podgorski '985 and Ordinary Skill in the Art Rejection

Claims 27-34 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Podgorski '985 in view of knowledge of one skilled in the art. In amended claims 27, 31, and 32, Applicants recite a system and method for restricting a getter. A getter is located in an interior of a getter well. A diffusion barrier is located on a surface of the getter. The diffusion barrier is a chemical barrier formed by a chemical reaction between the getter and a gas. The diffusion barrier reduces the rate at which the getter absorbs non-inert gases.

The Office Action states, and Applicants agree, that Podgorski '985 does not teach a diffusion barrier located on the getter. (See Office Action, page 5.) However, the Office Action then states that it would have been obvious to one having ordinary skill in the art to place the diffusion barrier on

the getter material. *Id.* Applicants respectfully disagree it would have been obvious to one skilled in the art to place the end cover 216 on the getter material 250.

Podgorski '985 does not show placing the end cover 216 on the getter material 250. As shown in Fig. 2, Podgorski '985 describes that the getter material 250 is suspended within the cavity 212 by electrodes 241 and 243. (Podgorski '985, column 2, lines 63-65.) "Internal to the cavity formed by the housing is an activated getter material for eliminating selected gas contaminants within the cavity." (Podgorski '985, column 2, lines 6-8.) The electrodes are used for flashing the getter material. (Podgorski '985, column 3, lines 11-15.) When a getter material is flashed, the outer coating of the getter material is vaporized.

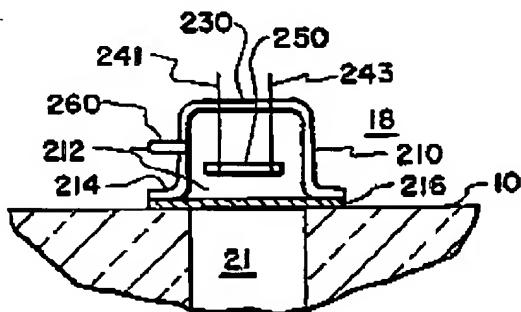


Fig. 2

Flashing the getter material causes getter particles to shed from the getter material, which can contaminate the sensor and reduce its useful life. (Podgorski '985, column 1, lines 36-43.) An object of the invention is to prevent getter materials from entering into the lasing cavity. (Podgorski '985, column 1 line 65 to column 2 line 2.) "Because of the 'sealing' function of the end cover 216, no particulate getter material matter can ever enter into the passageways and interconnected cavities of laser block 10." (Podgorski '985, column 3 line 53 to column 4 line 2.) Thus, the end cover is designed to overcome the problems associated with flashing the getter material.

Podgorski '985 does not suggest that the end cover could be placed on the getter material. To place the end cover on the getter material, the size of the end cover must be reduced to fit into the housing 210. If the end cover is sized to be placed on the getter material, the end cover would not completely cover the passageway 21, and thus, the end cover would not prevent getter materials from entering into the lasing cavity. Alternatively, if the end cover's size is adjusted to fit the diameter of the housing, another method of attaching the end cover to the housing would be needed as the mounting flange 214 would no longer be a viable method for attaching the end cover in a manner as to prevent getter materials from entering into the lasing cavity.

Furthermore, Podgorski '985 does not suggest that the getter material could be placed on the end cover. By placing the getter material on the end cover, the outer coating of the getter material adjacent to the end cover may not vaporize during flashing. Thus, the ability to flash the getter material may be impacted. Additionally, the end cover may be damaged during flashing, which may result in getter material entering the lasing cavity. Further, placing the getter material on the end cover may impact the end cover's ability to be used as an electrode. (See, Podgorski '985, column 4, lines 3-6.)

Because either placing the end cover on the getter material or placing the getter material on the end cover impacts the design and/or operation of the getter assembly as described by Podgorski '985, it would not be obvious to one skilled in the art to locate a diffusion barrier on a surface of the getter. Applicants have amended claims 27, 31, and 32 to clarify that the getter is located in the interior of a getter well.

Moreover, the end cover is a mechanical barrier, which is "permeable to selected gases." (See, Podgorski '985, column 2, lines 3-8.) Applicants have amended claims 27, 31, and 32 to clarify that the diffusion barrier is a chemical barrier, which reduces the rate at which the getter absorbs

non-inert gases. The surface of the getter is chemically changed due to the chemical reaction between the getter and the gas. The placement of the end cover on the getter does not chemically alter the surface of the getter. Accordingly, Podgorski '985 does not show or suggest a diffusion barrier that is formed on the surface of the getter as a result of a chemical reaction between the getter and a gas.

Accordingly, Applicants believe that the combination of Podgorski '985 and the knowledge of one skilled in the art does not show or suggest forming a chemical barrier on a surface of a getter that is located in an interior of a getter well. Accordingly, the combination of Podgorski '985 and the knowledge of one skilled in the art does not show or suggest each and every element of claims 27, 31, and 32.

Claims 28-30 depend on claim 27. Claims 33-34 depend from claim 32. Accordingly, Applicants also submit that claims 28-30 and 33-34 are not obvious in light of the combination of Podgorski '985 and the knowledge of one skilled in the art for at least the reasons described above with reference to claims 27 and 32.

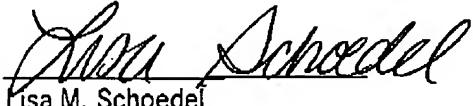
In light of the above amendments and remarks, Applicants respectfully request withdrawal of these 35 U.S.C. § 103(a) rejections.

CONCLUSION

In light of the above amendments and remarks, Applicants submit that the present application is in condition for allowance and respectfully request notice to this effect. The Examiner is requested to contact Applicants' representative below if any questions arise or she may be of assistance to the Examiner.

Respectfully submitted,

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